



2018

MECKLENBURG COUNTY
**STATE OF THE
ENVIRONMENT
REPORT**

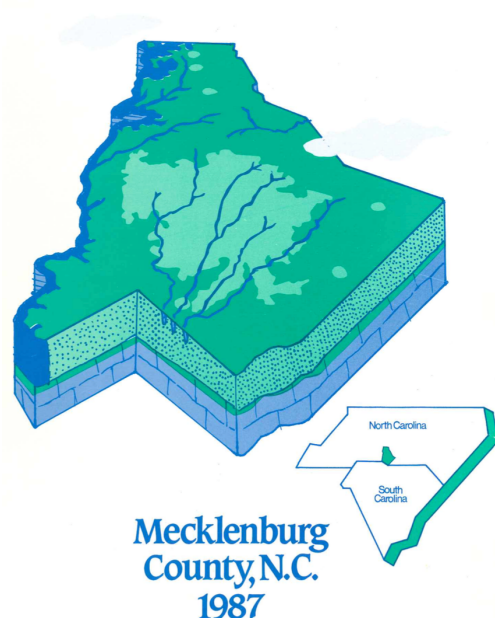
2018

STATE OF THE ENVIRONMENT MECKLENBURG COUNTY REPORT

INTRODUCTION

Mecklenburg County has released a State of the Environment Report (SOER) every two to three years since 1987. The Report emphasizes a commitment to act. Our local environment is worthy of preservation and a clean environment has economic and social value. When challenges are identified timely responses are required. Failure to act could jeopardize the quality of life enjoyed by all residents. The purpose of the report is four fold:

State of the Environment



1. Provide a current environmental status
2. Highlight major issues facing the community
3. Recommend direction
4. Provide objective measures to evaluate progress

Environmental conditions of our community have improved since the original report was released. However, there is still a need for proactive and engaged residents to preserve and enhance our quality of life. We welcome you to review the following report and ask that you join us in working to address the environmental challenges currently facing our community.

2018

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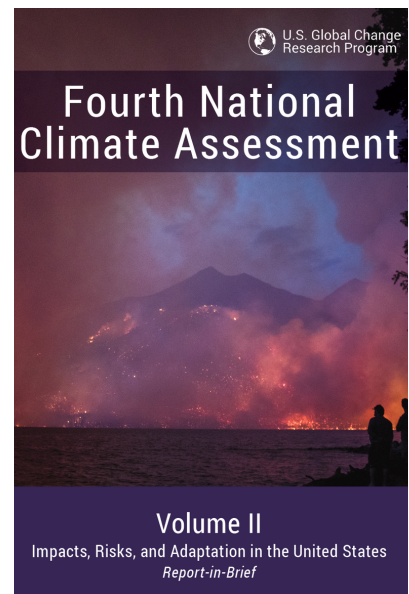
REPORT PRIORITIES

Connecting residents with validated information about our local environment is an important responsibility of government. Our community's pace of growth continues to put pressure on our environment and it is paramount that we anticipate future consequences. The following pages highlight information about our local environment concisely by:

1. Providing a snapshot of local conditions or innovative programs
2. Updating the community about potential issues
3. Communicating how the public can help

ADDITIONAL INFORMATION

Additional information about national environmental trends is available in Volume II of the Fourth National Climate Assessment (NCA4) released on November 23, 2018. This document is seen as a collection of environmental data from leading researchers and thirteen federal agencies. Specifically, Chapter 19 of the report focuses on the southeast.



2018

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MECKLENBURG COUNTY

PREVIOUS REPORTS

If you have an interest in referencing the last several previous reports they can be found below.



2016 REPORT

2014 REPORT

CONTRIBUTORS

The following Mecklenburg County staff members served as contacts for their respective departments. They demonstrated outstanding professionalism and their contributions to this report are greatly appreciated.

CONTENT STAFF

Megan Green - Air
David Geiser - Code
Alice Chambers - Land
Michael Talbert - Waste
Caroline Burgett - Stormwater
Kim Garrett - Groundwater

PRODUCTION STAFF

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James Scanlon - GIS Support
Dylan Kirk - Sustainability

Photos courtesy of Mecklenburg
County Public Information Department

2018

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FOCUS AREAS



AIR

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LAND

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STORMWATER

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GROUNDWATER

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AIR

100%

In 2018, local air quality met all standards for healthy air.



Most ozone-forming air pollution comes from motor vehicles and the number of registered vehicles continues to grow.



Support local efforts to create “Breathing Room” between air quality measurements and the health standard.

LINKS / RESOURCES

- MECKLENBURG COUNTY AIR QUALITY
- AIR QUALITY DATA
- BREATHING ROOM CAMPAIGN
- NORTH CAROLINA AIR AWARENESS

HOW YOU CAN HELP

AIR QUALITY IS GOOD MOST DAYS!

In 2018, Mecklenburg County was in compliance with all the federal, health-based air quality standards. *Find Out More* about our current compliance status.

Good
242 Days

Moderate
113 Days

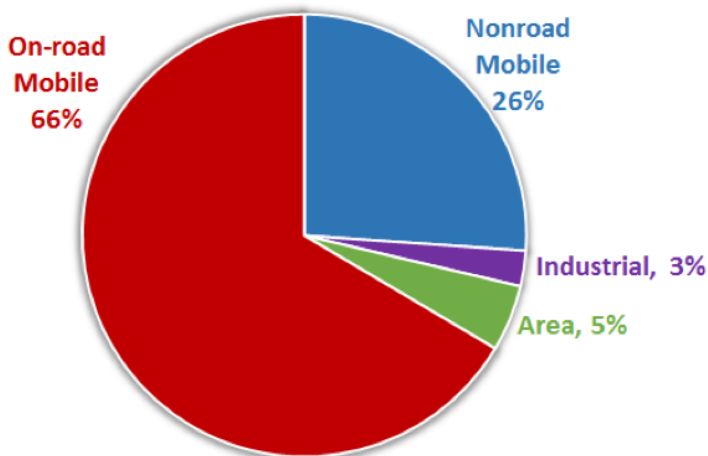
**Unhealthy
for Sensitive
Groups**
5 Days

**Unhealthy
for General
Population**
0 Days

**Very
Unhealthy**
0 Days

Nearly 90% of ozone-forming air pollution in Mecklenburg County comes from mobile sources like cars, trucks, and construction equipment. Commuters are encouraged to choose a cleaner commute like carpooling, taking transit, walking or biking to improve local air quality. To reduce non-road mobile source emissions, Mecklenburg County Air Quality (MCAQ) offers the Grants to Replace Aging Diesel Engines (GRADE) program. GRADE provides businesses and organizations funding incentives to replace or repower older diesel-powered vehicles and equipment.

Sources of Ozone-forming
Nitrogen Oxides (NOx)
Mecklenburg County, 2014



Despite dramatic improvements in local air quality over the last decade, Mecklenburg County only narrowly meets the health-based standard for ground-level ozone. MCAQ and the North Carolina Division of Air Quality want to partner with you to put some "breathing room" between our local data and the health standard for ozone. To create this breathing room, your support is critical for new voluntary and incentive-based emission reduction projects. Discover the ways you can help create Breathing Room by clicking the image below.



CODE



In FY18, Code Enforcement established the Special Projects Team.



As new construction or redevelopment occurs there are opportunities to increase building safety, efficiencies and connectivity.



Projects seeking environmental certifications are now offered a streamlined and unique customer service experience.

LINKS / RESOURCES

- MECKLENBURG COUNTY CODE ENFORCEMENT
- SPECIAL PROJECTS TEAM
- U.S. GREEN BUILDING COUNCIL (LEED)
- CHARLOTTE'S STRATEGIC ENERGY ACTION PLAN (SEAP)

HOW YOU CAN HELP

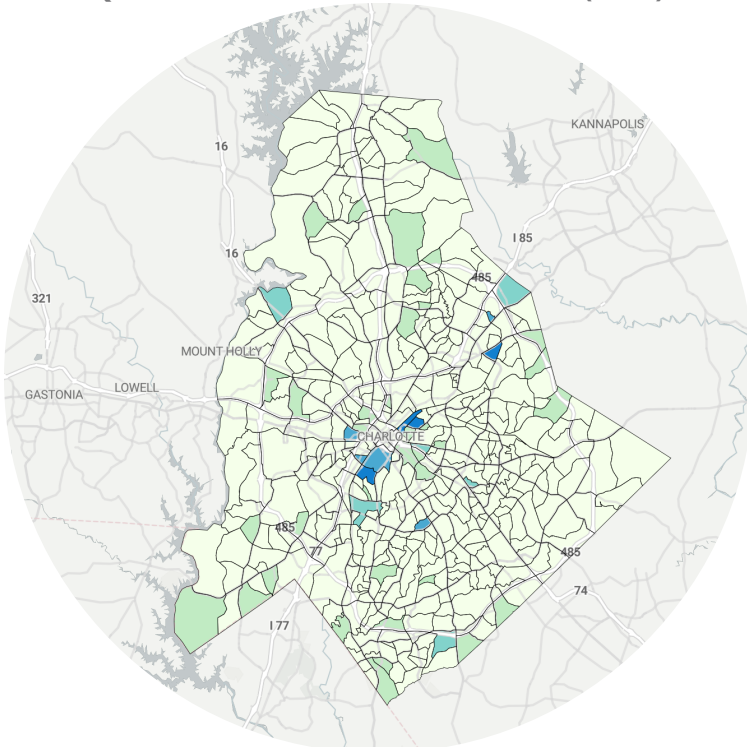
A NEW STREAMLINED APPROACH FOR SUSTAINABLE PROJECTS!

Residents deserve to feel confident in the safety of structures where they live, work and play. Mecklenburg County Code Enforcement's primary mission is to ensure safe, state-regulated building standards in our community.

Code Enforcement's Hybrid-Collaborative Delivery Team has transitioned into the "Special Projects Team" where they take on projects that do not fit the typical mold for plan review and permitting. One of the review triggers are highly sustainable projects, such as those seeking Leadership in Energy and Environmental Design (LEED) certification, 2030 challenge compliance, carbon neutral, etc.

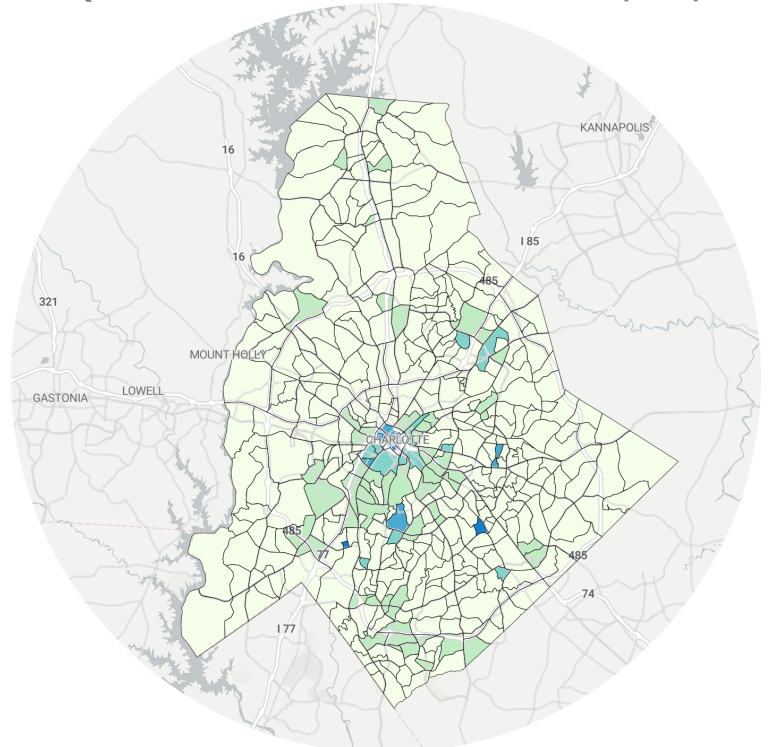
Mecklenburg County now offers an integrated customer service experience by diverting these projects to staff that have specialized training in sustainable construction techniques and LEED credentials. There is also potential for fewer project delays as this experience brings customers a designated review team from the projects preliminary meeting through the certificate of occupancy being issued.

Click the map below to enlarge
QOL: New Residential Construction (2018)



8,433 Units in FY18

Click the map below to enlarge
QOL: Commercial Construction Permits (2018)



4,612 permits in FY18

LAND



97%

Through FY18, 7,770 total acres of natural open space (nature preserves) had been preserved, 97% of the goal of 8,000 acres by 2025.



27% of Mecklenburg County's parks are covered in non-native invasive plant species.



Plant native trees and other plants on your property and remove any non-native plants you may have.

LINKS / RESOURCES

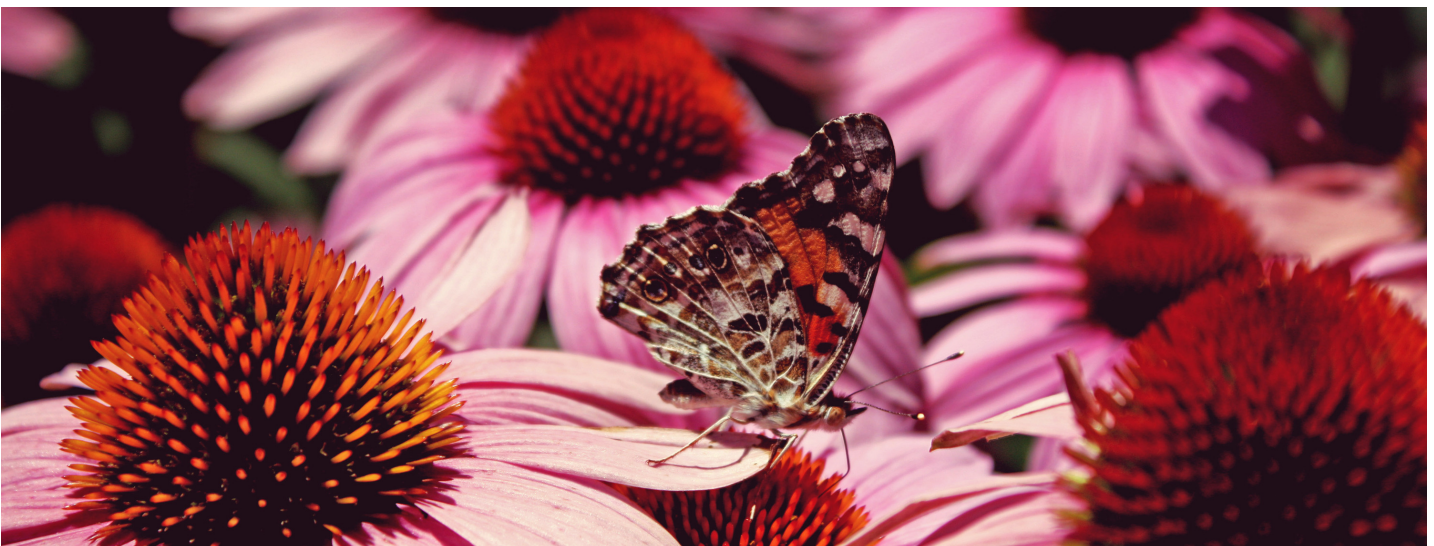
- MECKLENBURG COUNTY PARK AND RECREATION
- NATURE PRESERVES AND NATURAL RESOURCES
- CENTER FOR BIODIVERSITY STUDIES
- UNIVERSITY OF GEORGIA EARLY DETECTION & DISTRIBUTION MAPPING SYSTEM (EDDMAPS)

HOW YOU CAN HELP

Loss of biodiversity presents the biggest threat to natural spaces within our community. Past agricultural practices, high use recreation, the garden center industry, and travel corridors like I-77 and I-85 have played a significant role in the introduction of non-native invasive species into the County. The Charlotte region suffers as one of the most threatened and impacted areas in the entire United States, with invasive species being present at almost every one of the County's 255 parks, nature preserves and greenways. Properties along creeks and streams, including Greenway parcels, have particularly high concentration of non-native invasive species. This negatively impacts native plants and animals, leaving the ecosystem less resilient to threats such as harmful insects, diseases and extreme weather.



To preserve open space in the County, consider a conservation easement on your property. Landowners maintain the right to use the property for all purposes allowed under local zoning ordinances so long as those uses are consistent with the conservation easement restrictions. The property may be sold, leased, mortgaged and bequeathed just as with any other property, but it will always be subject to the conservation easement.



WASTE



In FY18, Solid Waste operations processed 506,728 tons of landfill waste, 122,046 tons of yard material, and 107,032 tons of recyclables.



Recycling contamination continues to impact the quality of materials received at processing facilities and ability to market materials for recycling.



Waste minimization coupled with recycling correctly (learn the right way to recycle – what and where). “If in doubt, leave it out.” Visit www.wipeoutwaste.com for more information.

LINKS / RESOURCES

- MECKLENBURG COUNTY SOLID WASTE
- DISPOSAL AND RECYCLING
- CURBSIDE RECYCLING PROGRAM
- NORTH CAROLINA COOPERATIVE EXTENSION BACKYARD COMPOSTING

HOW YOU CAN HELP

IF IN DOUBT, LEAVE IT OUT!

Mecklenburg County's processing facility has seen an increase in contamination from recyclables collected curbside. This may be due to a combination of enthusiasm for recycling, lack of education and inattention to the local rules. Our processing facility was designed to only accept the advertised curbside materials. Other materials can cause problems. Metals objects cut through conveyor belts and cost the County a significant amount of money for repair or replacement. Garden hoses and plastic bags wrap around the moving parts causing plant shut-downs that increase operating costs.



Divert your plastic bags back to local grocery stores or alternatively use reusable bags. Avoid lining your recycling containers with plastic bags.



Full-service recycling drop-off centers accept many other recyclable materials not included in the curbside pickup program, including metals.



Eliminate your use of plastic bags to collect yard materials. **DO NOT** mix animal waste with yard materials.

STORMWATER

93%

In FY18, a record high 93% of area streams met the instantaneous bacteria standards for recreational contact in baseflow conditions.



With the population growing in and around the region, the potential for increased pollution is present.



Never dump chemicals, paint or wash water on the ground or into a storm drain.

LINKS / RESOURCES

- MECKLENBURG COUNTY STORM WATER
- CHAR-MECK STORM WATER SERVICES
- STREAM-USE SUPPORT INDEX INTERACTIVE MAP
- CONTINUOUS MONITORING AND ALERT NOTIFICATION NETWORK (CMANN)

HOW YOU CAN HELP

ONLY RAIN WATER SHOULD GO DOWN THE STORM DRAIN!

Our streams drain the surrounding landscape called a "watershed". All rain water in our area will drain naturally or be carried through storm drainage infrastructure directly to our waterways (streams, rivers, lakes, etc.). This means any pollutants on the landscape are carried with the flow of water, degrading the water quality.

Pollutants include:

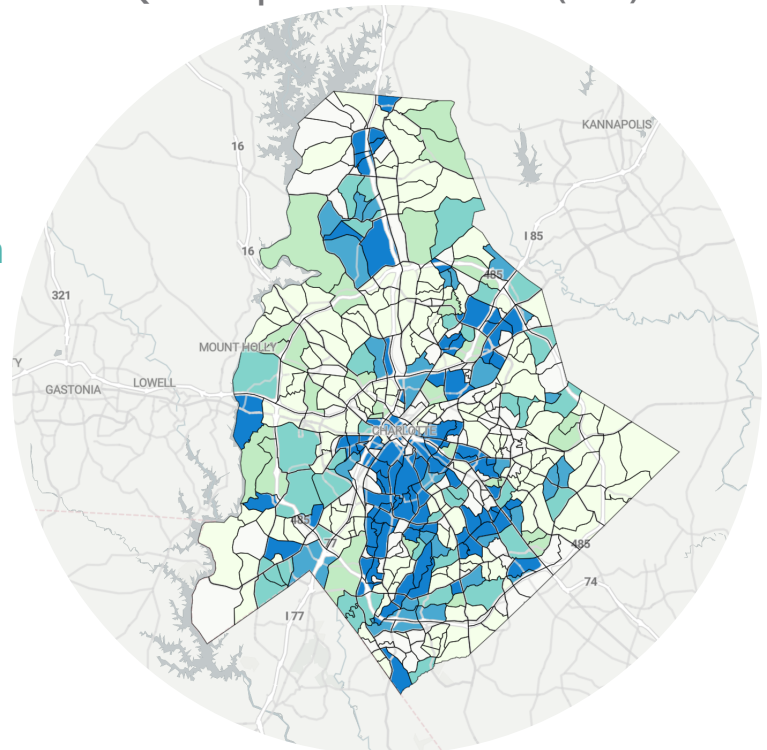
- Dirt
- Sewer spills and leaks
- Pet waste
- Paint
- Wash water
- Chemicals
- Oil
- Grease
- Gasoline
- Solid waste

Never put these pollutants down a storm drain. Do your best to prevent spills. Cleanup and properly dispose of residues left behind on roads, sidewalks, and landscaped areas. With a growing population, we need the public's help more than ever to get this message out and educate our community to develop habits that can protect our water quality for future generations.

You, your family and friends can help through our eleven volunteer programs, including:

- Adopting a local section of stream.
- Storm drain marking - volunteers label our storm drains.
- Tree planting and maintenance program - restore creek buffers, a natural way to filter out pollutants and reduce runoff.
- Become a Water Watcher - Help us find and eliminate all sources of pollution by reporting problems to 311, our website or our app. When you are out for a walk in your neighborhood or greenway, stop and look at the creek. Report unusual colors or odors that may be a sign of pollution problems.

Click the map below to enlarge
QOL: Adopted Stream Sections (2017)



~ 35% of eligible segments are adopted.

GROUNDWATER

25%

In FY18, Environmental Health received applications for 110 new water supply wells, of which 25% required an ARGU (Area of Regulated Groundwater Usage) review.



Well head protection and proper well abandonment continue to be the focus of public education and outreach efforts as new water supply wells are drilled, land is cleared for development and buildings are demolished for redevelopment.



All citizens are encouraged to increase the amount of grassed and natural areas in their yards to provide areas for groundwater recharge. Well owners are encouraged to protect groundwater resources by maintaining well heads and providing protective covers, properly abandoning inactive wells, maintaining onsite wastewater systems and not storing pesticides/fertilizers, solvents and other potential contaminants in and around well houses.

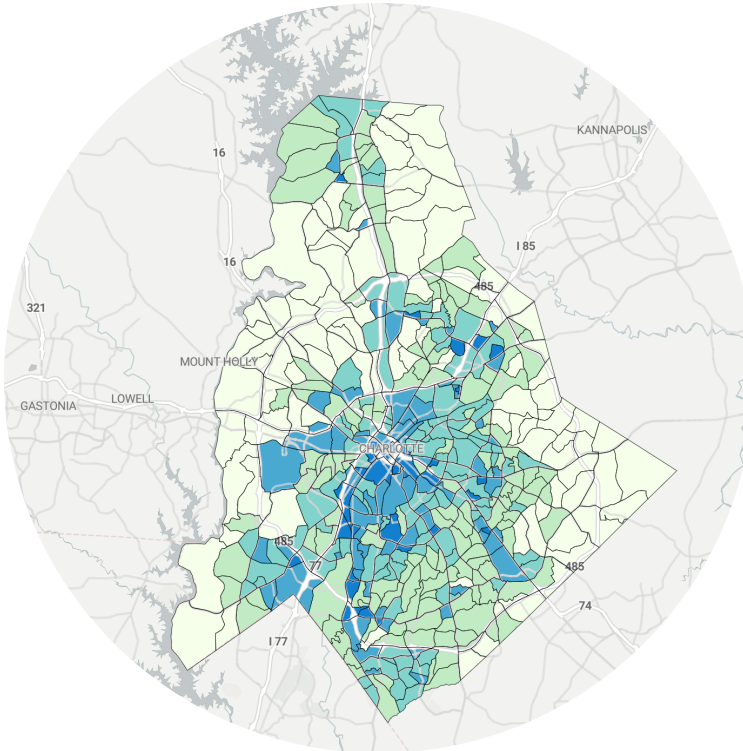
LINKS / RESOURCES

- MECKLENBURG COUNTY PUBLIC HEALTH
- GROUNDWATER & WASTEWATER SERVICES
- HOMEOWNER INFORMATION
- WELL INFORMATION SYSTEM 3.0

HOW YOU CAN HELP

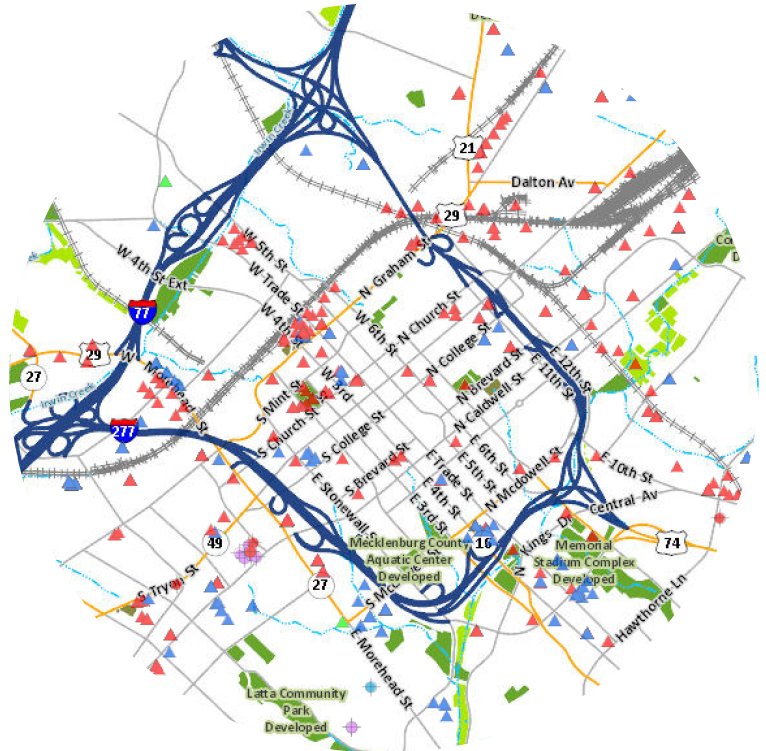
Groundwater is the source for most of the streams that flow through Mecklenburg County. This ground to surface water connection highlights one of the main reasons why the protection of groundwater resources and areas of groundwater recharge is so critical.

Click the map below to enlarge
QOL: Impervious Surface (2018)



15.2% or ~50,878ac of impervious surfaces

Click the map below to launch
Well Information System 3.0



110 New water supply wells in FY18

Water supply wells serve as direct conduits to the natural aquifer and therefore regulations are in place to ensure new water supply wells are installed by certified well contractors, meet minimum set backs off potential sources of contamination and are sampled for common contaminants. There are many positive actions our citizens can take to protect groundwater.

REPORT - Illegal dumping of trash, and debris, failing septic systems, and leaking underground/above ground storage tanks by calling 311.

PROTECT - Cover well heads of any active or inactive well.

MINIMIZE - The use of hazardous chemicals and harsh household cleaning products which are detrimental to septic systems and can eventually end up in our surface waters.

